

PATENT



Attorney Docket No.: 119929-1015

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Harold R. Garner  
Serial No: 09/326,526  
Filing Date: June 4, 1999  
Group/Art Unit: 2872  
Examiner: Phan, J.  
Title: DIGITAL OPTICAL CHEMISTRY MICROMIRROR IMAGER

Commissioner for Patents  
Washington, D.C. 20231

**DECLARATION UNDER 37 C.F.R. § 1.131 OF PRIOR INVENTION IN THE UNITED STATES TO OVERCOME CITED REFERENCE****Purpose of Declaration**

1. This declaration is to establish completion of the invention, which is the subject of the patent application serial no. 09/326,526, filed June 4, 1999, entitled "DIGITAL OPTICAL CHEMISTRY MICROMIRROR IMAGER," which claims priority to provisional patent application serial no. 60/087,948, filed June 4, 1998 in the United States at a date prior to February 1998, which is the date of the prior art cited by the Examiner in the Office Action mailed January 2, 2001.
2. The person making this declaration is the inventor.
3. The Board of Regents, The University of Texas System is the owner of the patent application by Assignment dated June 3, 1998, recorded on June 4, 1998 at reel 9217, frame 0897.

**Facts and Documentary Evidence**

4. To establish the date of completion of the invention of this application, the following copies of lab notebook pages are attached hereto as Exhibit A and submitted as evidence.
5. From the lab notebook pages attached hereto as Exhibit A, it can be seen that the invention in this application was used to produce a mask pattern on a substrate on the date even

therewith, which is on or before February 23, 1998, which is a date earlier than the effective date of the reference.

**Time of Presentation of the Declaration**

6. This declaration is submitted prior to final rejection.

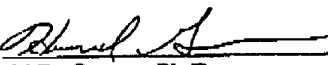
**Declaration**

7. As a person signing below:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

**Signature**

Date: 2/23/2001

By:   
Harold R. Garner, Ph.D.  
as named inventor.

Residence address:  
4100 Post Oak Road  
Flower Mound, Texas 75028

Business address:  
5323 Harry Hines Blvd, Mail Station 8591  
Dallas, Texas 75390-9094

1) Slide was modified with  
 $(\text{Et}_3\text{O})\text{Si}(\text{CH}_2)_3\text{N}(\text{CH}_2\text{CH}_2\text{OH})_2$  as described  
 on p. 114.

2) washed slide with Spacer 18  
 (Glen Research) + Activator  
 followed by capping and  
 oxidation.

3) Dried slide in desiccator  
 for weekend.

Reaction on the Robert's  
 machine:

(1) Deblock ; wait (1 min),  
 wash with  $\text{CH}_3\text{CN}$

(2) Activator + UV-PG-C-phosphora-  
 midite; wait, wash

(3) Cap 1 + Cap 2; wait, wash

(4) Oxidize; wait, wash

(5) UV-light; 5 min, without  
 any filter

(6) Used mask  
 wash

(7) Activator + CY-phosphoramidite;  
 wait, wash

To Page No. \_\_\_\_\_

Witnessed &amp; Understood by me, \_\_\_\_\_

Date

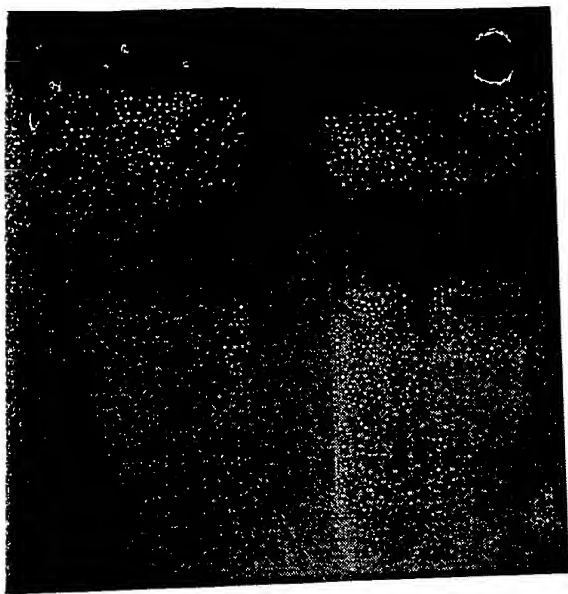
11-11-97

Invented by \_\_\_\_\_

Date

Recorded by \_\_\_\_\_

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mask

tabbles	EXHIBIT
	A

12

11/11/97 15:35

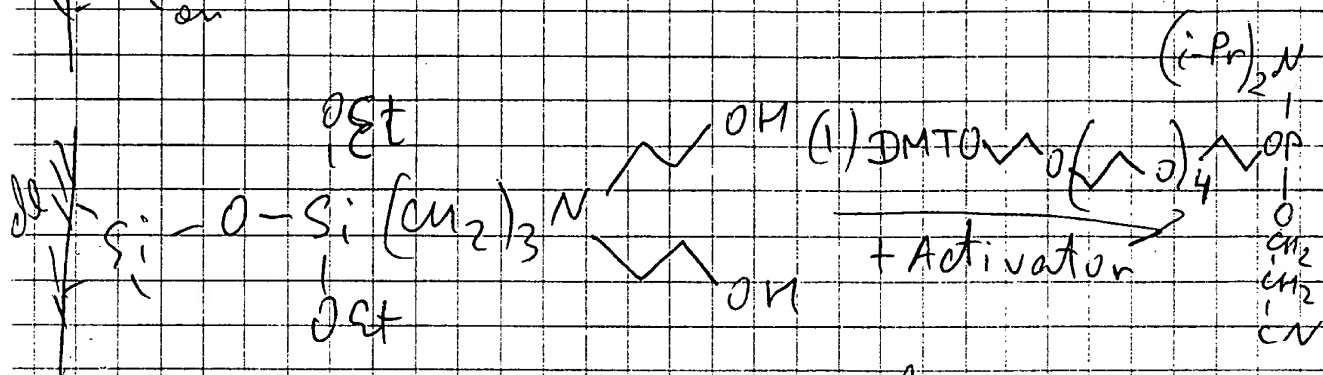
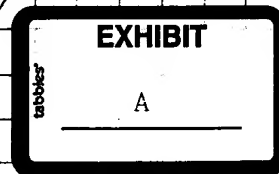
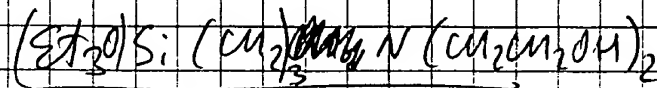
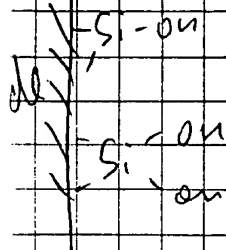
Focus

Page 1

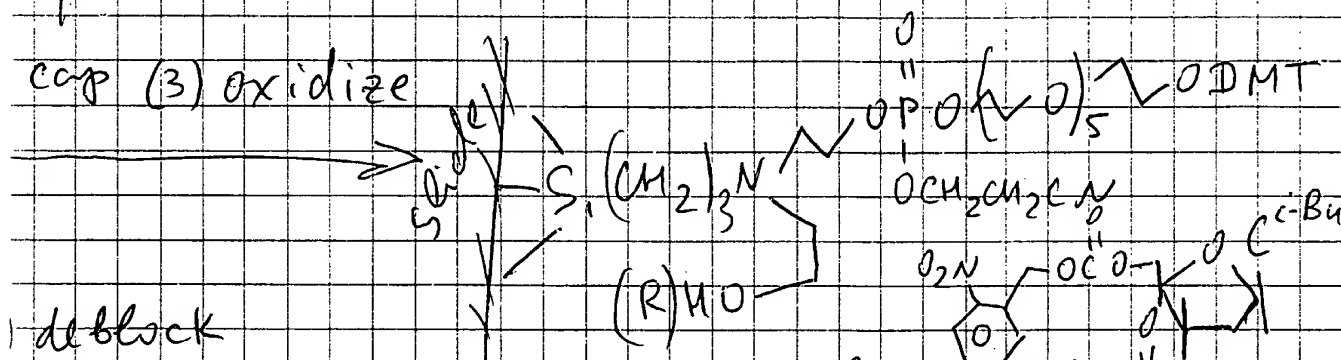
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Chemistry of successful run

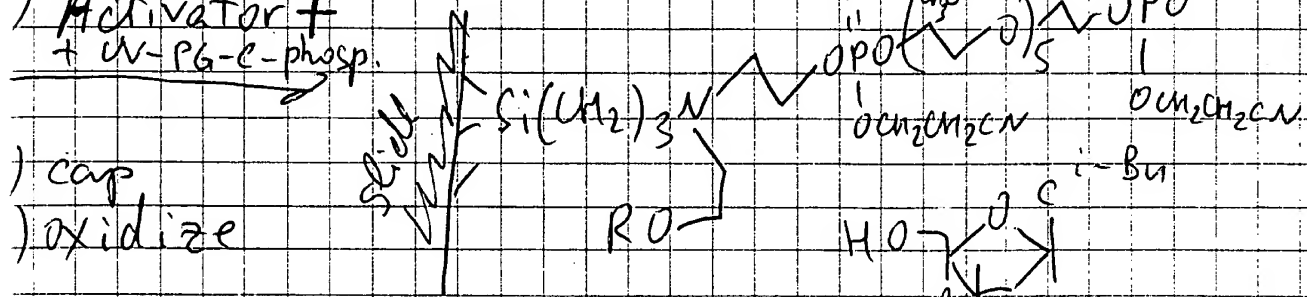


cap (3) oxidize



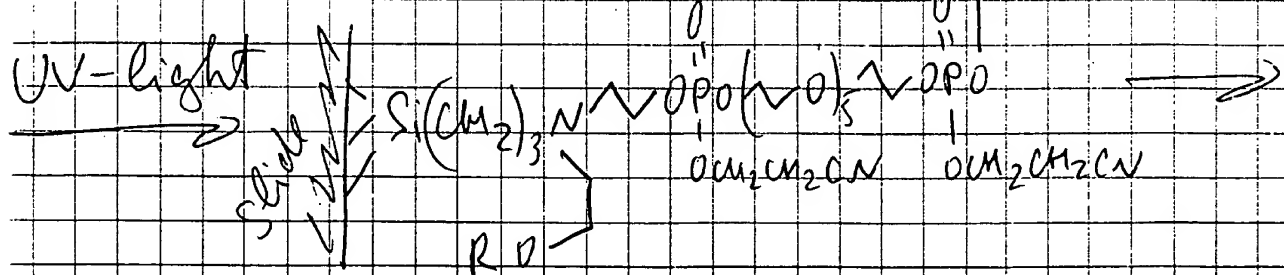
deblock

Activator + UV-PG-C-phosp.

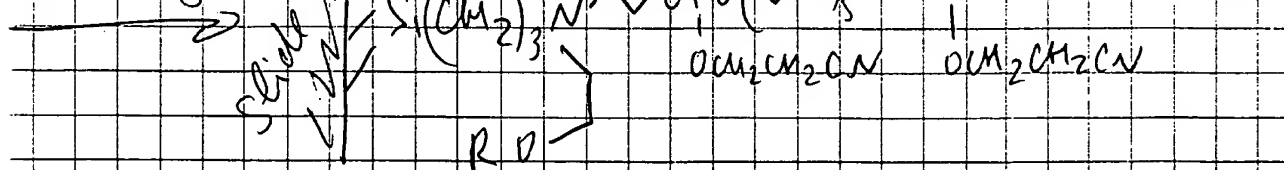


cap

oxidize



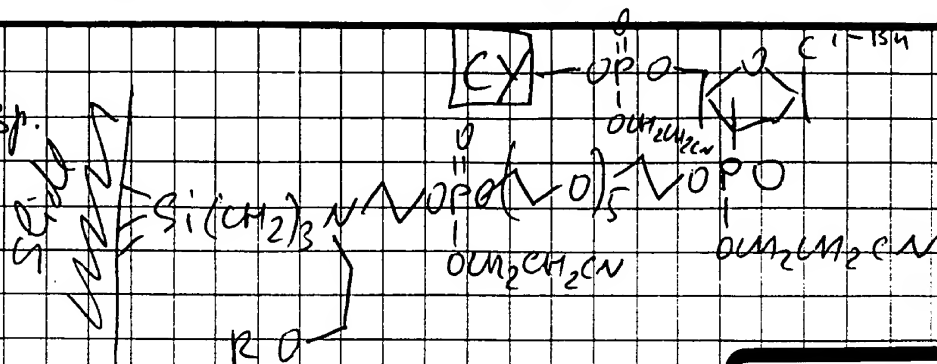
UV-light



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1) Act. + CY-phosp.

2) oxidize



1/ make slides

modif

CY-3

non-modif.

CY-3

**EXHIBIT**

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**essed & Understood by me,**

**Date**

11-11-97

**Invented by**

Recorded by

**Date**

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EXHIBIT

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MMD

1) Used  $\text{Si}(\text{CH}_3)_3\text{N}(\text{CH}_2\text{CH}_2\text{OH})_2$  PEPER SLIDE PREPARED BY ~~THE~~  
 YOUNG AS SHOWN ON PG 119.

~~ADD ACTIVATOR~~

~~Put slide on ~~activation~~ ~~device~~ Add ~~1:1~~ ~~Deblocker~~ : ~~Activator~~.~~

~~1) CAPPED (1:1, CAP A:CAP B)  
 OXIDIZED (I<sub>2</sub>)~~

WASH = ACETONITRILE

ADD SPACER & ACTIVATOR (1:1 RATIO) (SEE PAGE 122 FOR SPACER STRUCTURE)

CAPPED (1:1 CAP 1:CAP 2), WAIT, WASH

OXIDIZED, WAIT, WASH

1) DEBLOCKED, WAIT, WASH

1) ADDED UV-PG-C-P<sub>6</sub> : ACTIVATOR (1:1) RATIO WAIT, WASH

CAPPS, WAIT, WASH

OXIDIZED, WAIT, WASH

UV LIGHT (15 MIN) NO FILTER, USED MASK GRID

1) TOOK OUT OF REAG CHAMBER

REST IS UNDER HOOD1) ADDED ACTIVATOR :  $\text{GV-P}_6$  IN 1:1 RATIO, WASH

1) OXIDIZED, WASH, WASH

1) WASH W/ ACETONITRILE

LOOK THROUGH MICROSCOPE

To Page No. \_\_\_\_\_

&amp; Understood by me, \_\_\_\_\_

Date

11-12-77

Invented by \_\_\_\_\_

Recorded by

P. R. RALOG

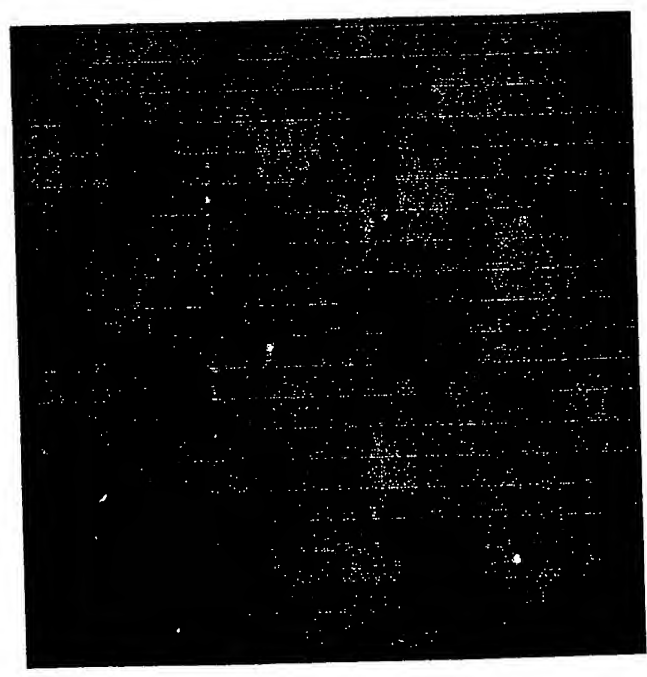
Date

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Roscoe

EXHIBIT

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